

Response dated January 17, 2006
Reply to Final Office Action of October 14, 2005

Application No. 10/017,048

REMARKS

The Office Action of October 14, 2005 has been carefully reviewed and this response and request for continued examination is Applicants' response thereto. Claims 1-26 are pending in this application. Claims 1-9 and 11-22 stand rejected. In view of the above amendments and the remarks below, the Applicants believe all the claims are in condition for allowance and respectfully request such action.

Claim 10

Claim 10 was not addressed in the Final Office Action. As claim 10 was previously amended so that claim 10 properly depends from claim 9, the rejection under 35 U.S.C. § 112 was traversed. Accordingly, claim 10 is believed to be allowable and notification of same is respectfully sought.

New Claims

Claims 23-26 are new and are directed toward a method that is related to the subject matter recited in claim 12, thus no new matter has been added. Applicants submit that claims 23-26 are in condition for allowance because the references of record fail to disclose such a method and notification of same is earnestly sought.

Amended Claims

Independent claim 1 was amended to recite "wherein each of the at least two fixed length filters has an offset value corresponding to one of the at least two clusters." Support for this is at least found on page 7, paragraph 28 of the specification as filed, thus no new matter has been added.

Claim 21 has been amended to correct a minor informality, however no change in the scope of claim 21 was intended or believed to have been made.

Rejection Under 35 USC §102 - Lakshman

Claims 1-9 and 11-22 stand rejected under 35 USC §102(b) as being anticipated by U.S. Patent No. 5,951,651 to Lakshman, et al. ("Lakshman").

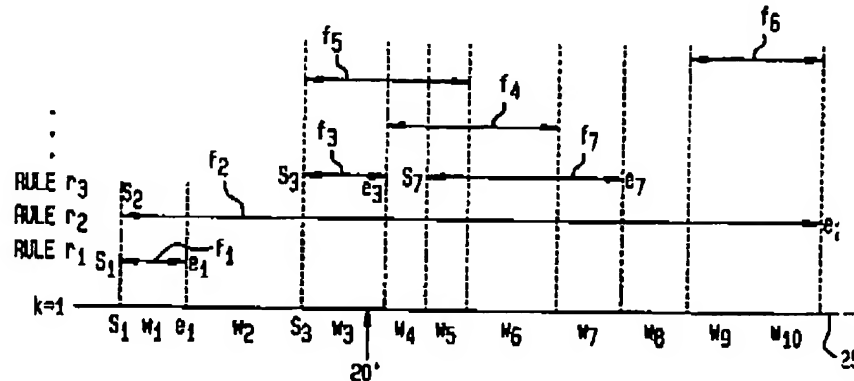
Lakshman discloses a method of filtering packet in a router. (Lakshman, Abstract). Lakshman explains that a range of IP addresses can be filtered for each rule so a range f_1 represents a range corresponding to a rule r_1 , f_2 represents a range for rule r_2 , and so on.

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(Lakshman, C. 3, L. 36-54). Lakshman goes on to explain that the start and termination address points of each filter line f_1 through f_n are projected to create an array of window partitions as disclosed in Figure 3, provided below:

FIG. 3



(Lakshman, Figure 3). Then, for each window, w_i , corresponding to a range of IP values, a set of rules that applies to that window w_i can be determined. (Lakshman, C. 4, L. 4-21). Thus, Lakshman allows a router to determine how to route packets based on a set of rules corresponding the source or destination IP address. However, as the Office Action admits, Lakshman is silent on the notion of fixed length filters. In addition, Lakshman fails to discuss identifying clusters of discrete segments of data in packets.

Turning to independent claim 1, the features of "a mapping module that contains control logic for performing steps comprising" "receiving the identification of at least two clusters of the discrete segments of data" and "selecting at least two of a plurality of fixed length filters to filter the at least two clusters, wherein each of the at least two fixed length filters has an offset value corresponding to one of the at least two clusters" are recited. Applicants respectfully submit these features are simply absent for Lakshman.

Looking first at the feature of "receiving the identification of at least two clusters of the discrete segments of data," the Office Action suggests that this is disclosed in Lakshman at C. 4, L. 48-54. Applicants respectfully submit, however, that the section in Lakshman that the Office Action has cited to does not disclose "receiving the identification of at least two clusters of the discrete segments of data" but instead explains that a parameter of the packet, such as the source

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IP address, is compared with the window interval w_i of IP address ranges to determine which filters are applicable to a packet with that source address. There is no mention of receiving the identification of at least two clusters of discrete segments of data as recited in claim 1.

Applicants respectfully submit that the only identification disclosed in Lakshman is the identification of which window interval w_i the packet fits in. Thus, Lakshman discloses varying which filters are being used based on what IP address the source address of the packet.

However, the identification of which window of IP address ranges the packet corresponds to cannot be compared to the "identification of at least two clusters of the discrete segments of data."

The Office Action further indicated that the packets of data in Lakshman contain segments of data, pointing to Figure 1. Applicants agree that the packets of data disclosed in Lakshman contain segments of data, indeed this is a basic property of packets. However, this does not address the feature "receiving the identification of at least two clusters of the discrete segments of data" as claimed. Applicants respectfully submit that Lakshman fails to disclose such a concept. Nor is such a disclosure inherent in Lakshman. As disclosed in the pending application at page 1, paragraph 3:

When a single filter is utilized to filter bits 0-40, the desired clusters are filtered along with several bits of unneeded data. As a result, the size of the filter is unnecessarily large.

Turning to the second feature, "selecting at least two of a plurality of fixed length filters to filter the at least two clusters, wherein each of the at least two fixed length filters has an offset value corresponding to one of the at least two clusters," the Office Action admits that Lakshman fails to expressly disclose fixed length filters but suggested that the filters disclosed in Lakshman are inherently fixed in length because they have a starting and stopping point. Applicants submit, however, that the filters disclosed in Lakshman, to the extent they are fixed, are only disclosed as being fixed with respect to the starting and stopping point in the range of IP addresses. Thus, there is no disclosure at all in Lakshman regarding fixed length filters as recited in claim 1.

To the extent that the filters of Lakshman are inherently fixed in length, which Applicants note is not discussed in Lakshman and, therefore, does not appear to be supported, there is still no discussion of offset value for the filters. The only thing that could be considered to be close

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to an offset relates to the IP range that a particular rule is applied to. However, an offset in the range of IP addresses that a rule is applied to cannot be equated to offset value related to the location of a filter in a segment of a packet.

Furthermore, claim 1 recites a mapping module that contains logic to perform the step of "selecting at least two of a plurality of fixed length filters to filter the at least two clusters, wherein each of the at least two fixed length filters has an offset value corresponding to one of the at least two clusters," To the extent that Lakshman can be argued to inherently disclose similar functionality, which Applicants do not believe is at all supported, Lakshman completely fails to disclose such a step. Nor does Lakshman provide any suggestion that could be used to modify Lakshman to reach the features claimed in claim 1.

Therefore, for at least the above reasons, Applicants respectfully submit that Lakshman fails to disclose the subject matter claimed in claim 1.

Independent claim 12 is directed toward a method that recites a step similar to the "receiving an identification..." step in claim 1. Applicants respectfully submit that even if Lakshman could be construed to disclose similar functionality, Lakshman plainly does not disclose such a step in the generation of a map that may be used by a filter module. Therefore, for at least the reasons discussed above with respect to this limitation in claim 1, this feature of claim 12 is not disclosed in Lakshman.

Independent claim 18 recites a computer readable medium containing computer executable instructions for causing a mapping module to perform the step of "receiving the identification of at least two clusters of the discrete segments of data." For at least the reasons discussed with regard to claim 1 and 12, this feature is not disclosed in Lakshman.

Claims 2-11 depend from claim 1 and are not disclosed in Lakshman for the reasons discussed above with respect to claim 1 and for the additional limitations recited therein.

For example, claim 2 recites "wherein the plurality of fixed length filters have a common length" and this is not disclosed in Lakshman. While the Office Action suggested that this feature could be found in Lakshman, C. 4, L. 30-33, this portion of Lakshman merely discloses that bit vectors, which are not filters, may be of common length such as 512 bits. Applicants respectfully submit that as Lakshman is silent on the notion of fixed filters to begin with, something the Office Action admits, Lakshman cannot logically disclose fixed length filters having a common length.

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Similarly, Lakshman fails to disclose filters having a fixed length of 2 bytes as recited in claim 3. Applicants note that Figure 5 fails to provide any indication of the length of the bit vector 75b and furthermore, the bit vector 75b is not a filter. Furthermore, Lakshman suggests that the bit-vector is 512 bits long and that is not the same as 2 bytes. Therefore, the Office Action's reasoning does not seem to be supported.

In addition, Lakshman fails to disclose "wherein the plurality of fixed length filters is configured so that each of the plurality of fixed length filters has an offset value corresponding to one of the discrete segments of the packet" as recited in claim 4. The Office Action suggests that Lakshman discloses this at C. 4, L. 41-44, however, this section of Lakshman doesn't discuss offsets of filters but instead discusses bit-vectors having logical values so as to indicate which filters are to be used for a particular window w_i . And as previously noted, the only offsets Lakshman even mentions with respect to filters relates to a range of IP values that the filter would apply to, not the offset value as recited in claim 4. As the specification of the present application makes clear on page 4, paragraph 21, "An offset value identifies a point, from the beginning of a packet, at which a given filter will begin filtering operations." Applicants respectfully submit that this concept is simply absent from Lakshman.

In addition, Lakshman fails to disclose "wherein at least one of the plurality of fixed length filters has an offset value of 0" as recited in claim 5. The Office Action suggests that Lakshman, C. 4, L. 33-34 somehow discloses this but that section of Lakshman merely discloses that each bit value of the bit vector corresponds to a filter and initially the logical value of the bit is zero, thus indicating that the filter corresponding to that bit value is not being used. Applicants respectfully submit that a logical value of "0" in a bit vector, which is not related to the location of the filter but is instead related to whether the filter is used, cannot be equated with an offset value of 0.

Claims 13-17 depend from claim 12 and are not disclosed in Lakshman for at least the reasons discussed above with respect to claim 12 and for the additional limitations recited therein.

Claims 19-22 depend from claim 18 and are not disclosed in Lakshman for at least the reasons discussed above with respect to claim 18 and for the additional limitations recited

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Accordingly, as all the pending claims 1-9 and 11-22 have at least one limitations not disclosed by Lakshman, withdrawal of this ground of rejection is respectfully requested.

Applicants respectfully submit that the instant application is in condition for allowance. A notice to this effect is respectfully requested. Please feel free to contact the undersigned should any questions arise with respect to this case that may be addressed by telephone.

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Respectfully submitted,

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